

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A heat exchanger device for a gas seal (1) for centrifugal compressors characterized in that ~~it~~ the device comprises a fluid heat exchanger (3) positioned between the gas seal of the compressor and the housing wall of said seal (1) to keep the temperature of said seal (1) low in the case of high temperatures of the wall and/or compressed gas.
2. (currently amended) The exchanger device according to claim 1, ~~characterized in that~~ wherein said exchanger (3) is a circular exchanger suitable for enveloping said seal (1).
3. (currently amended) The exchanger device according to ~~any of the previous claims, characterized in that~~ claim 1 wherein said exchanger (3) extends between said seal (1) and ~~the~~ a supporting flange (2) of said seal (1).
4. (currently amended) The exchanger device according to ~~any of the previous claims~~ claim 1, characterized in that wherein said exchanger (3) comprises at least one inlet opening (4) and at least one outlet opening (6) ~~of the cooling liquid~~ connected to each other by a coiled path (8), said path for flowing a cooling liquid through said exchanger device.
5. (currently amended) The exchanger device according to ~~any of the previous claims, characterized~~ claim 1, said seal comprises ~~in that~~ at least one inlet duct (7) ~~and said at least one inlet duct of the seal~~ ~~gas~~ passes through the centre of the exchanger.
6. (currently amended) The exchanger device according to ~~any of the above claims~~ claim 1, wherein the exchanger comprises a cooling liquid that further comprises ~~characterized in that~~ ~~the cooling liquid is~~ water.